

## Study of Asian Strongyliini (Coleoptera, Tenebrionidae)

### XIII. Nine New *Strongylium* Species from the Malay Peninsula

**Kimio MASUMOTO**

Institute of Human Living Sciences, Otsuma Women's University,  
Tokyo, 102–8357 Japan

**Abstract** This is the thirteenth part of the study concerning Asian Strongyliini and deals with nine new species of the genus *Strongylium* from the Malay Peninsula, described under the following names: *Strongylium malaccanum* sp. nov., *S. pahangense* sp. nov., *S. maruyamai* sp. nov., *S. karubei* sp. nov., *S. munetoshii* sp. nov., *S. tanahense* sp. nov., *S. gombakense* sp. nov., *S. hangayi* sp. nov., and *S. cameronense* sp. nov.

This paper is the thirteenth part of my study of the Asian Strongyliini, and deals with the genus *Strongylium* from the Malay Peninsula. I am going to describe nine new species.

Besides the specimens of my collection, the materials were provided by Dr. Ottó MERKL, the Hungarian Natural History Museum, Budapest, Dr. Wolfgang SCHAWALLER, Staatliches Museum für Naturkunde in Stuttgart, and Dr. Munetoshi MARUYAMA, the National Science Museum (Nat. Hist.), Tokyo.

Appreciation is due to the above persons who offered me the materials, and also to Mr. Seiji MORITA, Tokyo, for taking photographs. Finally, my deepest thanks should be expressed to Emeritus curator, Dr. Shun-Ichi UENO, National Science Museum (Nat. Hist.), Tokyo, for his constant guidance in my taxonomic studies.

Depositories of the holotypes to be designated are given under each description. The abbreviations used herein are as follows: NSMT – National Science Museum (Nat. Hist.), Tokyo; HNHMB – Hungarian Natural History Museum, Budapest; SMNS – Staatliches Museum für Naturkunde in Stuttgart.

#### *Strongylium malaccanum* sp. nov.

(Fig. 1)

Yellowish brown; elytra, apical six segments of antennae, apical halves of meso- and metafemora, and basal parts of meso- and metatibiae dark brown; dorsal surface rather strongly shining, ventral surface somewhat alutaceous; almost glabrous. Body elongated subfusiform, longitudinally convex, weakly depressed in antero-medial part of elytra.

Female. Head suboctagonal, remarkably vitreous; clypeus semicircular, scattered with microscopic punctures, gently depressed in basal part, truncate at apex, fronto-clypeal border curved and strongly impressed; genae oblique, sparsely scattered with minute punctures, strongly raised outwards, with outer margins roundly produced; frons somewhat boldly T-shaped, widened posteriad, more sparsely scattered with minute punctures than genae, steeply inclined anteriad, weakly impressed along median line in posterior part, diatone about 0.43 times the width of transverse diameter of an eye; vertex convex, rather closely punctate, the punctures somewhat elongate. Eyes subreniform in dorsal view, convex laterad, obliquely inlaid into head. Antennae subfiliform, feebly becoming bolder apicad, reaching basal 1/4 of elytra, ratio of the length of each segment from base to apex: 0.34, 0.20, 0.53, 0.51, 0.44, 0.57, 0.59, 0.61, 0.52, 0.51, 0.62.

Pronotum somewhat barrel-shaped in dorsal view, slightly wider than long, widest at apical 2/5, rather noticeably narrowed in basal part; apex sublinear, grooved and rimmed, the groove becoming deeper and wider medially; base very slightly bisinuous, more boldly bordered and rimmed than base, feebly emarginate in the area opposite to scutellum; sides steeply inclined, not bordered from prosternum; front angles almost rounded, and hind angles acutely angulate in dorsal view; disc strongly convex, nearly hemispherical in anterior part, rather vitreous, scattered with punctures, which are small in central part and become larger in lateral parts. Scutellum triangular, flattened and smooth.

Elytra elongated subfusiform, 2.5 times as long as wide, 3.8 times the length and 1.5 times the width of pronotum; dorsum longitudinally convex, gently flattened in basal part, feebly depressed in basal 1/6 and apical 1/4, highest at basal 2/5; disc with rows of punctures, which are somewhat elongate at the bottoms and rather ovate or quadrate at the upper faces; intervals gently raised, vitreous and almost impunctate; humeri gently swollen; apices slightly explanate and produced.

Legs (female) medium-sized; femora gently thickened; ratios of the lengths of pro-, meso- and metatarsomeres: 0.62, 0.25, 0.26, 0.24, 1.20; 0.91, 0.48, 0.44, 0.29, 1.14; 1.25, 0.51, 0.30, 1.22.

Body length: 5.4 mm.

Holotype: ♀, "Kwala-/Lumpur//Malacca/Biró//*Strongylium / malaccanum / Holotype! / Geb // Holotype!*" (HNHMB).

*Notes.* This is an isolated species. The species name "*Strongylium malaccanum*" inscribed on the label attached to the single specimen available is a *nomen nudum*, since GEBIEN did not describe this species properly.

### *Strongylium pahangense* sp. nov.

(Figs. 2, 10–11)

Dark chestnut brown, with elytra and apical six segments of antennae darker in colour; head, pronotum, scutellum and legs feebly vitreously shining, elytra rather



strongly vitreously shining, ventral surface somewhat alutaceous; each surface covered with long pale hairs. Body elongated subfusiform, longitudinally convex, gently flattened in basal and medial parts of elytra.

Head transversely elliptical; clypeus semicircularly projected anteriad, almost smooth, punctate, depressed in basal part, fronto-clypeal border curved and deeply sulcate; genae obliquely, strongly raised outwards, sparsely scattered with punctures, with rounded outer margins; frons somewhat boldly T-shaped, steeply inclined anteriad, feebly concave in posterior part, rugoso-punctate, diatone 0.5 times the width of transverse diameter of an eye. Eyes rather large, remarkably convex laterad, gently convex above, obliquely inlaid into head. Antennae slender, extending beyond the middle of elytra, apical six segments remarkably longer and wider than basal five, ratio of the length of each segment from base to apex: 0.58, 0.20, 0.31, 0.16, 0.13, 0.81, 0.83, 0.99, 1.02, 0.99, 1.19.

Pronotum subquadrate in dorsal view, 1.28 times as wide as long; apex feebly produced, bordered and gently ridged, the ridge rather bold medially, becoming finer laterad, scattered with microscopic punctures; base very slightly sinuous laterally, bordered and ridged, the ridge rather smooth and sparsely scattered with minute punctures; sides steeply inclined laterad, not bordered but continuous to ventral side; front angles rounded, hind angles angulate in dorsal view; disc feebly convex, noticeably impressed in basal 1/3 on each side, and also impressed at the middle close to base, closely covered with shallow punctures, which are rather small in the medial part. Scutellum subcordate, feebly elevated, microsculptured, densely covered with pily hairs.

Elytra elongated subfusiform, 2.4 times as long as wide, 4.6 times the length and 1.6 times the width of pronotum, widest at apical 1/3; dorsum longitudinally convex, highest at basal 1/5, gently flattened in basal 1/7 and basal 2/5 along sutural parts; disc smooth, sparsely scattered with microscopic punctures, and also with rows of elongated punctures, which are sometimes longitudinally fused with one another, and often forming short grooves; intervals narrow and raised, rather transversely connected with one another; humeri gently swollen; apices roundly produced.

Male anal sternite without peculiarity. Legs medium-sized and without peculiarity; ratios of the lengths of pro-, meso- and metatarsomeres: 0.26, 0.22, 0.22, 0.27, 1.2; 0.72, 0.46, 0.34, 0.33, 1.21; 0.92, 0.44, 0.37, 1.02.

Male genitalia subfusiform, 1.4 mm in length, 0.19 mm in width, gently curved in lateral view; fused lateral lobes elongated triangular, 0.68 mm in length, with nib-shaped apices.

Body length: 6.5 mm.

Holotype: ♂, Tanah Rata (from illuminated white-washed walls, No. 77), Cameron Highlands, Pahang, Malaysia, 23~31-III-1995, O. MERKL leg. (HNHMB). Paratype: 1 ex., same data as for the holotype.

*Notes.* This is an isolated species, whose body is distinctly covered with long pale hairs.

*Strongylium maruyamai* sp. nov.

(Figs. 3, 12–13)

Black, with dark greenish tinge, basal parts of meso- and metafemora dark brown, hairs on surfaces pale greenish; head, pronotum and scutellum weakly, somewhat sericeously shining, elytra moderately, somewhat vitreously shining, ventral sides almost mat, gula polished; each surface covered with fine long hairs. Body oblong-ovate, convex longitudinally.

Head subhexagonal, mostly closely punctate; clypeus transverse, depressed in basal part, bent ventrad in the middle, truncate in front, fronto-clypeal border straightly grooved in middle and curved in lateral parts; genae oblique, rather strongly, roundly raised outwards, with areas before eyes weakly depressed and almost impunctate; frons widely T-shaped, gently inclined anteriad, with a vague impunctate area along medial line, diatone 0.66 times the width of transverse diameter of an eye. Eyes medium-sized, transversely comma-shaped in dorsal view, rather strongly convex laterad, gently, roundly inlaid into head. Antennae reaching basal 2/9 of elytra, 5th to 10th segments dilated to each apex, apical six flattened, ratio of the length of each segment from base to apex: 0.38, 0.20, 0.73, 0.56, 0.54, 0.53, 0.52, 0.44, 0.31, 0.28, 0.30.

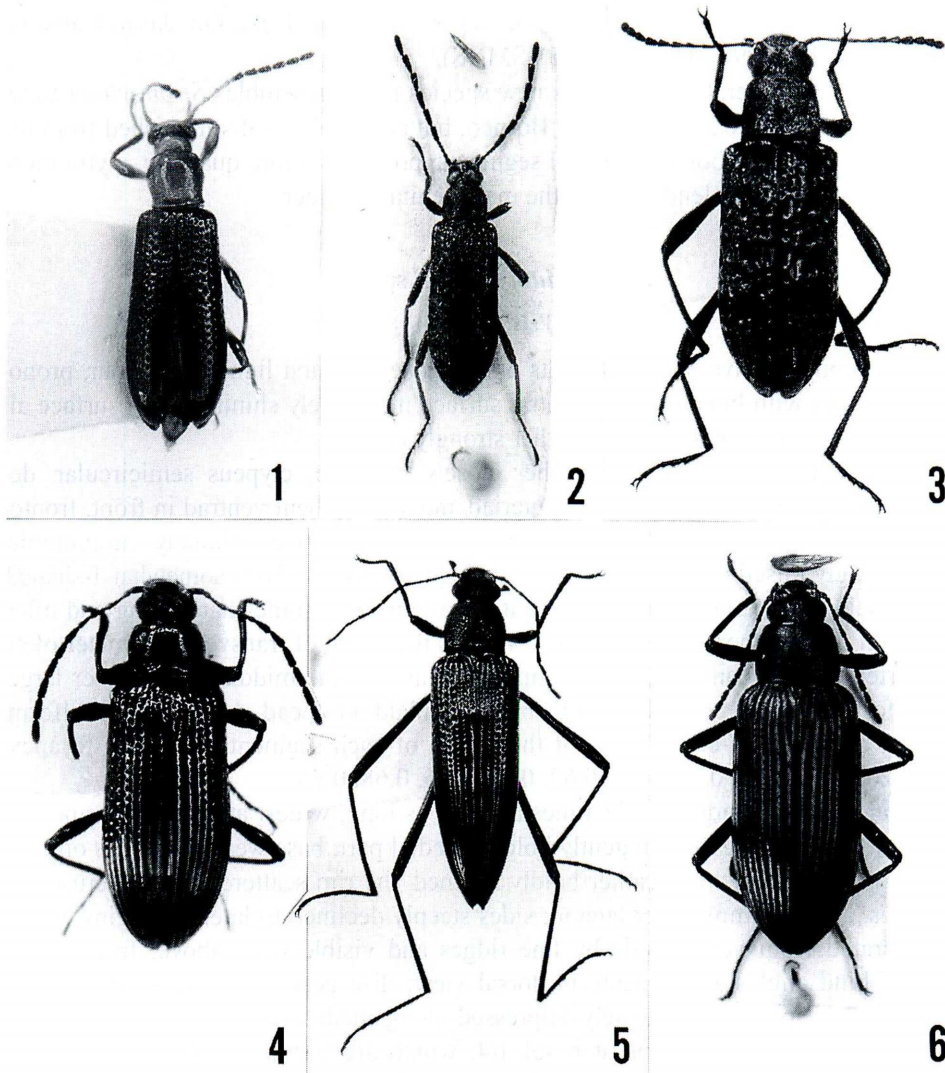
Pronotum subquadrate, 1.3 times as wide as long, widest at base; apex sublinear, weakly, widely triangularly ridged, finely rimmed in lateral parts; base feebly bisinuous, weakly ridged, rimmed in lateral parts; sides steeply declined to lateral margins, which are finely ridged; front angles rounded, hind angles acutely angulate; disc weakly convex, impressed at the middle and close to base on each side, and also impressed close to apex and base medially, shallowly grooved along medial line in basal half, closely covered with punctures, which are often fused with one another. Scutellum sublinguiform, gently elevated, closely punctate, noticeably densely covered with pily hairs.

Elytra elongated triangular, about 2.1 times as long as wide, 4.4 times the length and 1.46 times the width of pronotum, widest at apical 1/3; dorsum rather strongly convex, with a pair of gibbosities at basal 1/9, with area between and behind them depressed; disc with rows of longitudinal grooves, which are often short and form foveae in antero-lateral parts; intervals strongly convex and often ridged, very weakly covered with isodiametric microsculpture, scattered with microscopic punctures, each clothed with an adpressed hair; base depressed between sutural part and 5th groove; humeri rather noticeably swollen; apices feebly explanate and roundly produced.

Male anal sternite semicircularly depressed in apical 3/5, slightly emarginate at apex. Legs stout; male protibia with ventral face weakly gouged in apical 2/5; male metatibia with inner face weakly flattened and very feebly twisted in middle; ratios of the lengths of pro-, meso- and metatarsomeres: 0.25, 0.14, 0.20, 0.23, 1.20; 1.24, 0.61, 0.57, 0.53, 1.23; 1.32, 0.61, 0.43, 1.11.

Male genitalia subfusiform, 1.8 mm in length and 0.4 mm in width, rather strongly curved in lateral view; fused lateral lobes elongated triangular, 0.95 mm in





Figs. 1–6. Habitus of *Strongylium* spp. from the Malay Peninsula. — 1, *S. malaccanum* sp. nov., holotype, ♀; 2, *S. pahangense* sp. nov., holotype, ♂; 3, *S. maruyamai* sp. nov., holotype, ♂; 4, *S. karubei* sp. nov., holotype, ♂; 5, *S. munetoshii* sp. nov., holotype, ♂; 6, *S. tanahense* sp. nov., holotype, ♂.

length, concave in medio-apical part, with apices gently prolonged and acute.

Body length: 10 mm.

Holotype: ♂, G. Jasar, Cameron Highlands, W. Malaysia, 20–III–2000, M. MARUYAMA leg. (NSMT). Paratypes: 1 ex., Tanah Rata (edge of degraded rainforest), Cameron Highlands, Pahang, Malaysia, FIT, No. 100, 21–III~2–IV–1995, O. MERKL

leg. (HNHMB); 1 ex., 2 km S. Tanah Rata on Tapah Road, roadside vegetation, swept & beaten, no. 89, 27–III–1995, O. MERKL leg. (HNHMB); 1 ex., Gn. Jasar, Cameron Highlands, 4–IV–1990, A. RIEDEL leg. (SMNS).

*Notes.* In general features, this new species rather resembles *Strongylium kasharai* MASUMOTO, 2002, from Sabah, Borneo, but can easily be distinguished from the latter by the antennae bolder in apical segments, pronotum more quadrate, elytra more strongly grooved, legs slenderer, and the male genitalia bolder.

***Strongylium karubei* sp. nov.**

(Figs. 4, 14–15)

Dark coppery, five basal segments of antennae and tarsi lighter in colour, pronotum and elytra with brassy lustre, ventral surface moderately shining; each surface almost glabrous. Body oblong-ovate, rather strongly convex.

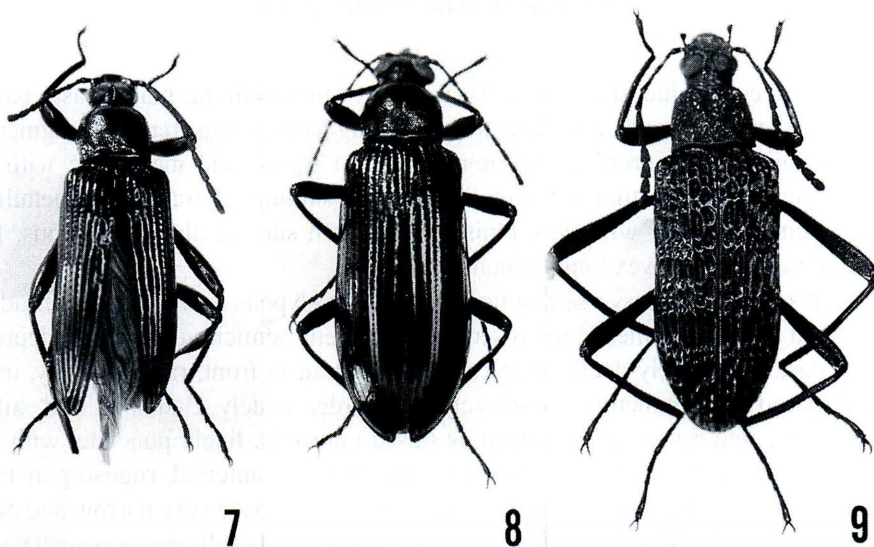
Head transversely elliptical, rather closely punctate; clypeus semicircular, depressed in basal part, gently inclined anteriad, moderately bent ventrad in front, fronto-clypeal border widely U-shaped and clearly sulcate; genae obliquely subrhombic, rather strongly raised outwards, with rounded outer margins; frons somewhat T-shaped, steeply inclined anteriad, coarsely punctate, the punctures somewhat oblong and often fused with one another, diameter about 1/4 times the width of transverse diameter of an eye; vertex weakly convex, with an impunctate area at the middle. Eyes rather large, subreniform, strongly convex laterad, obliquely inlaid into head. Antennae subfiliform, reaching basal 1/3 of elytra, ratio of the length of each segment from base to apex: 0.49, 0.20, 0.57, 0.56, 0.51, 0.57, 0.62, 0.67, 0.66, 0.68, 0.76.

Pronotum subquadrate, 1.33 times as wide as long, widest at apical 2/5; apex almost straight, rimmed, the rim gently bold in medial part; base weakly sinuous on each side, strongly bordered and rather boldly rimmed, the rim scattered with microscopic punctures, and becoming finer laterad; sides steeply declined to lateral margins, which are separated from ventral side by fine ridges and visible from above; front angles rounded, hind angles rather acute in dorsal view; disc gently convex, scattered with variously sized punctures, vaguely impressed along medial line in basal half, with a pair of transverse impressions at basal 1/4, which are weakly connected with each other at the middle. Scutellum triangular with feebly rounded sides, flat and smooth, sparsely scattered with microscopic punctures.

Elytra oblong-ovate, 2.12 times as long as wide, widest at apical 3/7, 5.11 times the length and 1.84 times the width of pronotum; dorsum rather strongly convex, highest at basal 3/7, noticeably depressed in basal 1/5 and also in area around scutellar striae; disc with rows of punctures, which are somewhat ovate, often connected with one another by shallow striae, and become larger and sparser in antero-lateral parts; intervals gently convex, rather vitreous, finely, transversely aciculate; humeri feebly swollen; apices weakly roundly produced.

Anal sternite covered with isodiametric microsculpture and small punctures,





Figs. 7–9. Habitus of *Strongylium* spp. from the Malay Peninsula. — 7, *S. gombakense* sp. nov., holotype, ♂; 8, *S. hangayi* sp. nov., holotype, ♂; 9, *S. cameronense* sp. nov. holotype, ♂.

clothed with very fine hairs. Legs medium-sized, though the tarsi are rather long; ratios of the lengths of pro-, meso- and metatarsomeres: 0.48, 0.26, 0.29, –, –; 0.62, 0.43, 0.42, 0.32, 1.20; 0.94, 0.48, 0.32, 1.27.

Male genitalia somewhat elongated fusiform, about 1.30 mm in length and 0.24 mm in width, weakly curved in lateral view; fused lateral lobes 0.63 mm in length, nib-shaped, with rounded apices.

Body length: 5.2–5.7 mm.

Holotype: ♂, Mt. Jasar, Cameron Highlands, W. Malaysia, 12–III–1989, H. KARUBE leg. (NSMT). Paratypes: 1 ex., same data as for the holotype; 3 exs., Gn. Jasar, Cameron Highlands, 4–IV–1990, A. RIEDEL leg. (HNHMB); 1 ex., 1–3–IV–1990, same locality and collector as for the preceding; 2 exs., Robinson Falls (swept & beating, No, 81), Cameron Highlands, 24–III–1995, O. MERKL leg. (HNHMB); 1 ex., Brinchang, Trll., Cameron Highlands, 19–VII–1992, C. W. & L. B. O'BRIEN leg. (SMNS).

*Notes.* This new species somewhat resembles *Strongylium tsuyukiellum* MASUMOTO, 2001, from Sumatra, but can be distinguished from the latter by the eyes smaller and not approximate to each other, the pronotum less strongly punctate and more strongly impressed in the posterior parts on each side, the elytra shorter with intervals less strongly ridged, and the male genitalia shorter and less strongly prolonged apicad.

*Strongylium munetoshii* sp. nov.

(Figs. 5, 16–17)

Dark greenish blue, profemora, basal parts of mesofemora, major basal parts of metafemora reddish brown, antennae, the remaining parts of legs, terminal segments of palpi brownish black; protibia and apical parts of meso- and metatibiae with dark bluish tinge; head, pronotum and scutellum weakly shining, elytra weakly metallicly shining, ventral surface with dark bluish luster; each surface almost glabrous. Body elongated fusiform, convex longitudinally.

Head somewhat transverse elliptical, though the clypeus is projected anteriad, feebly covered with isodiametric microsculpture; clypeus semicircular, gently depressed in basal part, moderately declined apicad, bent ventrad in front, rather closely, irregularly scattered with punctures, fronto-clypeal border widely U-shaped and sulcate; genae oblique and rather narrow, strongly raised outwards, finely punctate, with outer margins rounded; frons finely T-shaped, steeply inclined anteriad, rugoso-punctate at the middle close to the fronto-clypeal border, interocular space very narrow and almost impunctate; area behind the middle of eyes to vertex coarsely rugoso-punctate, impressed at the middle. Eyes very large, subreniform in dorsal view, strongly convex laterad, broadly, roundly inlaid into head. Antennae filiform, reaching basal 1/5 of elytra, ratio of the length of each segment from base to apex: 0.58, 0.20, 1.02, 0.98, 0.76, 0.77, 0.69, 0.68, 0.62, 0.60, 0.67.

Pronotum barrel-shaped, 1.15 times as wide as long, widest slightly before the middle, feebly sinuous before base; apex feebly emarginate, ridged in wide V-shape, the ridge sparsely scattered with microscopic punctures; base sinuous in lateral parts, boldly rimmed, the rim almost smooth, sparsely scattered with microscopic punctures; sides steeply declined to lateral margins, which are separated from ventral parts by fine ridges; front angles nearly rounded, hind angles slightly angulate; disc gently convex, feebly covered with isodiametric microsculpture, closely, rugoso-punctate, the punctures becoming coarser laterad. Scutellum sublinguiform, feebly raised, shallowly aciculate.

Elytra elongated triangular, 2.74 times as long as wide, 4.42 times the length and 1.44 times the width of pronotum, widest at base, feebly sinuous at basal 1/3, then gradually narrowed apicad; dorsum moderately convex, bi-undulate, highest at basal 1/5; disc punctate-grooved, the punctures rather small, ovate and closely set in antero-internal and posterior parts, larger, sparser and somewhat foveolate in antero-lateral parts; intervals gently convex, weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures; 1st to 5th grooves noticeably deepened near base; humeri gently swollen; apices dehiscently projected.

Male anal sternite semicircularly depressed, with apex emarginate. Legs slender; male protibia with a tooth at basal 2/5 on ventral surface; ratios of the lengths of pro-, meso- and metatarsomeres: 0.27, 0.16, 0.22, 0.21, 1.20; 2.62, 1.21, 0.81, 0.52, 1.53: 3.04, 1.11, 0.79, 1.56.



Male genitalia slender and rather modified, about 4.6 mm in length and 0.8 mm in width; basal piece oblong-ovate, gently convex dorsad in apical part; fused lateral lobes remarkably elongate, narrowed at the middle and apical 1/6, with apex obcordate and obliquely attached to basal part.

Body length: 14–15 mm.

Holotype: ♂, 19 miles near Cameron Highlands, W. Malaysia, 19–IV–2000, M. MARUYAMA leg. (NSMT). Paratypes: 1 ex., Cameron Highlands, Perak, I–1985, WONG leg. (SMNS); 1 ex., Vicinity of Tapha, Cameron Highlands, 4–V–1955, G. HANGAY leg. (HNHMB).

*Notes.* Judging from the body outline and the shape of the male genitalia, this new species is related to *Strongylium spinitibiale* MASUMOTO, 1999, from Laos, but can be distinguished from the latter by the genae narrower, eyes more strongly convex laterad, pronotum more coarsely rugoso-punctate and more boldly bordered both at the apex and base, elytra slenderer and more shiny, and the male genitalia shorter (5.35 mm in *S. spinitibiale*) with basal piece not narrowed apicad and lateral lobes narrowed in middle (cf. fig. 18 on p. 349 of this series VIII).

***Strongylium tanahense* sp. nov.**

(Figs. 6, 18–19)

Piceous, antennae, major parts of ventral side and tarsi brownish black; dorsal surface feebly, sericeously shining, ventral surface somewhat alutaceous, apical 2/3 of terminal segments of antennae dark reddish brown; each surface almost glabrous. Body elongated fusiform, gently convex dorsad.

Head somewhat transversely elliptical, weakly covered with isodiametric microsculpture, scattered with small punctures; clypeus rather narrow in basal part, widened in anterior part, gently inclined anteriorly, bent ventrad in front, with a short transverse impression at the middle near fronto-clypeal border, fronto-clypeal border somewhat widely U-shaped in basal half, strongly widened in the remaining part and reaching outer margins; genae oblique, gently raised laterad, weakly depressed in interior parts before eyes, with outer margins obtuse; frons somewhat T-shaped with basal part widened, gently inclined anteriorly, very feebly impressed along median line, with an impunctate area in anterior part and a closely punctate area in posterior part, diameter 0.5 times the width of transverse diameter of an eye; vertex closely punctate. Eyes oblique, feebly depressed against frons, convex laterad, obliquely inlaid into head. Antennae subfiliform, feebly becoming bolder apicad, reaching basal 1/5 of elytra, ratio of the length of each segment from base to apex: 0.48, 0.20, 0.63, 0.61, 0.57, 0.56, 0.53, 0.51, 0.42, 0.36, 0.38.

Pronotum subquadrate with rounded sides, 1.33 times as wide as long, widest slightly behind the middle; apex nearly straight, rather clearly rimmed, the rim becoming bolder in medial part, sparsely scattered with microscopic punctures; base gently sinuous on each side, clearly bordered and ridged, more densely scattered with micro-

scopic punctures than apex; sides steeply declined to lateral margins, which are finely ridged, the ridges not visible from above; front angles rounded, hind angles obtusely angulate in dorsal view; disc gently convex, weakly covered with isodiametric microsculpture, softly impressed close to base on each side, closely and rather irregularly scattered with small punctures, each with a bent minute scale. Scutellum nearly equilateral triangular with feebly rounded sides, weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures.

Elytra subfusiform, about 2.08 times as long as wide, about 4.4 times the length and 1.45 times the width of pronotum, widest at the middle; dorsum rather strongly convex dorsad, highest at basal 2/5; disc weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures, weakly, rather transversely aciculate, punctato-striate, the punctures rather elongate, 5th stria reaching base; intervals rather strongly convex; humeri gently swollen; apices weakly produced.

Male anal sternite semicircularly, weakly depressed in apical part, truncate at apex. Legs without special modification; ratios of the lengths of pro-, meso- and metatarsomeres: 0.28, 0.23, 0.25, 0.24, 1.20; 1.77, 0.88, 0.71, 0.41, 1.37; 1.97, 0.89, 0.54, 1.36.

Male genitalia fusiform, 2.63 mm in length, 0.59 mm in width, feebly curved in lateral view; fused lateral lobes 1.21 mm in length, gently narrowed in basal 2/5, then more strongly narrowed apicad in dorsal view, with acute apices.

Body length: 13.6 mm.

Holotype: ♂, Tanah Rata (from illuminated white-washed walls, No. 77), Cameron Highlands, Pahang, Malaysia, 23~31-III-1995, O. MERKL leg. (HNHMB).

*Notes.* This new species resembles *Strongylium ishizukai* MASUMOTO, 2003, originally described from Thailand, but can be distinguished from the latter by the slenderer body with the dorsal surface more noticeably covered with isodiametric microsculpture (therefore less shiny), clypeus and genae shorter, diatone wider (0.2 times the width of an eye diameter in *S. ishizukai*), major apical part of 11th antennal segment brownish, pronotum almost evenly convex and less strongly bordered, scutellum narrower in basal part, elytra more finely punctato-striate, and the male genitalia with fused lateral lobes more markedly narrowed in apical 3/5.

### ***Strongylium gombakense* sp. nov.**

(Figs. 7, 20–21)

Dark coppery, pronotum, posterior part of scutellum, elytra and major parts of ventral side dark greenish tinge; dorsal surface strongly metallically shining, ventral side of head polished, pro-, meso- and metasterna weakly shining, abdomen moderately shining; each surface except for interior sides of male metatibiae almost glabrous. Body subfusiform, strongly convex dorsad.

Head transversely decagonal, weakly covered with isodiametric microsculpture, rather closely punctate; clypeus subtrapezoidal, flattened in basal part, bent ventrad in



apical part, weakly impressed before fronto-clypeal border, fronto-clypeal border almost straight and deeply sulcate; genae obliquely parallelogrammatic, strongly raised outwards, with outer margins rounded; frons finely T-shaped, steeply inclined anteriorly, impressed along median line in posterior part, with interocular space very narrow and finely ridged. Eyes rather large, subreniform, approximate with each other, strongly convex laterad, obliquely roundly inlaid into head. Antennae subfiliform, reaching basal 2/9 of elytra, ratio of the length of each segment from base to apex: 0.55, 0.20, 0.64, 0.67, 0.62, 0.64, 0.63, 0.65, 0.62, 0.64, 0.68.

Pronotum 1.20 times as wide as long, widest at the middle, gently sinuous before base; apex obviously shorter than base, feebly produced anteriorly, deeply bordered in a V-shape, marginal part convex and sparsely scattered with minute punctures; base sinuous on each side, strongly bordered and ridged; front angles rounded, hind angles rather acutely angulate; sides steeply declined to lateral margins, which are finely ridged, bluntly toothed at the middle, and visible from above; disc moderately convex, weakly covered with isodiametric microsculpture, irregularly punctate, very feebly impressed in basal 1/5 on each side, also weakly impressed near base on each side and at the middle. Scutellum triangular, gently raised in posterior part, almost smooth, sparsely scattered with minute punctures.

Elytra about 2.1 times as long as wide, 3.9 times the length and 1.4 times the width of pronotum, widest near base; disc punctato-striate, the punctures ovate to oblong, connected with one another by fine striae, small and closely set in interior and posterior parts, becoming larger and somewhat foveolate in antero-lateral parts, 5th stria reaching base; intervals strongly convex, covered with isodiametric microsculpture, sparsely scattered with microscopic punctures; base raised from sutural to 5th intervals; humeri moderately swollen; apices weakly produced.

Male anal sternite quadrately depressed, with apex subtruncate; male metatibia flattened, with internal face haired and noticeably twisted; ratios of the lengths of pro-, meso- and metatarsomeres: 0.25, 0.22, 0.19, 0.17, 1.20; 1.02, 0.40, 0.36, 0.29, 1.23; 1.11, 0.40, 0.31, 1.23.

Male genitalia somewhat elongated fusiform, strongly constricted at the middle, 2.48 mm in length, 0.39 mm in width, moderately curved in middle in lateral view; fused lateral lobes feebly elongated fusiform, 1.66 mm in length, with apices rather acute.

Body length: 10.5–11.3 mm.

Holotype: ♂, Ulu Gombak (FIT), Selangor, Malaysia, 21-V~3-VI-2003, M. MARUYAMA leg. (NSMT). Paratype: 1 ex., same data as for the holotype.

*Notes.* This new species is closely related to *Strongylium promiscuum* GEBIEN, 1927, originally described from Sumatra and recorded from Mentawai, but can be distinguished from the latter by the clypeus narrower, pronotum more noticeably toothed at the middle of lateral margins, with the bases less boldly bordered, elytra less strongly produced apically, and the legs slenderer.

*Strongylium hangayi* sp. nov.

(Figs. 8, 22–23)

Dark coppery, outer margins of genae, antennae, base of pronotum, major parts of ventral sides, tibiae, etc., dark reddish brown; clypeus, outer margins of genae, pronotum and elytra rather strongly, metallicly shining, major parts of head, scutellum and ventral side rather moderately shining; each surface almost glabrous. Body elongate, gently convex longitudinally.

Head subdecagonal, closely, irregularly punctate; clypeus semicircular, flattened in basal part, gently inclined anteriad, weakly bent ventrad and truncate in front, fronto-clypeal border finely sulcate; genae somewhat obliquely rhombic, scattered with small punctures, strongly raised outwards, with outer margins rounded; frons somewhat bold T-shaped, moderately declined to fronto-clypeal border, coarsely rugoso-punctate, weakly grooved along eyes, with an ill-shaped impunctate area close to fronto-clypeal border, and also with a vague longitudinal impression along medial line, the area around the impression impunctate, diatone about 0.4 times the width of transverse diameter of an eye. Eyes rather large and transverse, strongly convex laterad, subelliptically inlaid into head. Antennae subfiliform, reaching basal 1/3 of elytra, ratio of the length of each segment from base to apex: 0.58, 0.20, 0.79, 0.67, 0.65, 0.64, 0.63, 0.61, 0.59, 0.58, –.

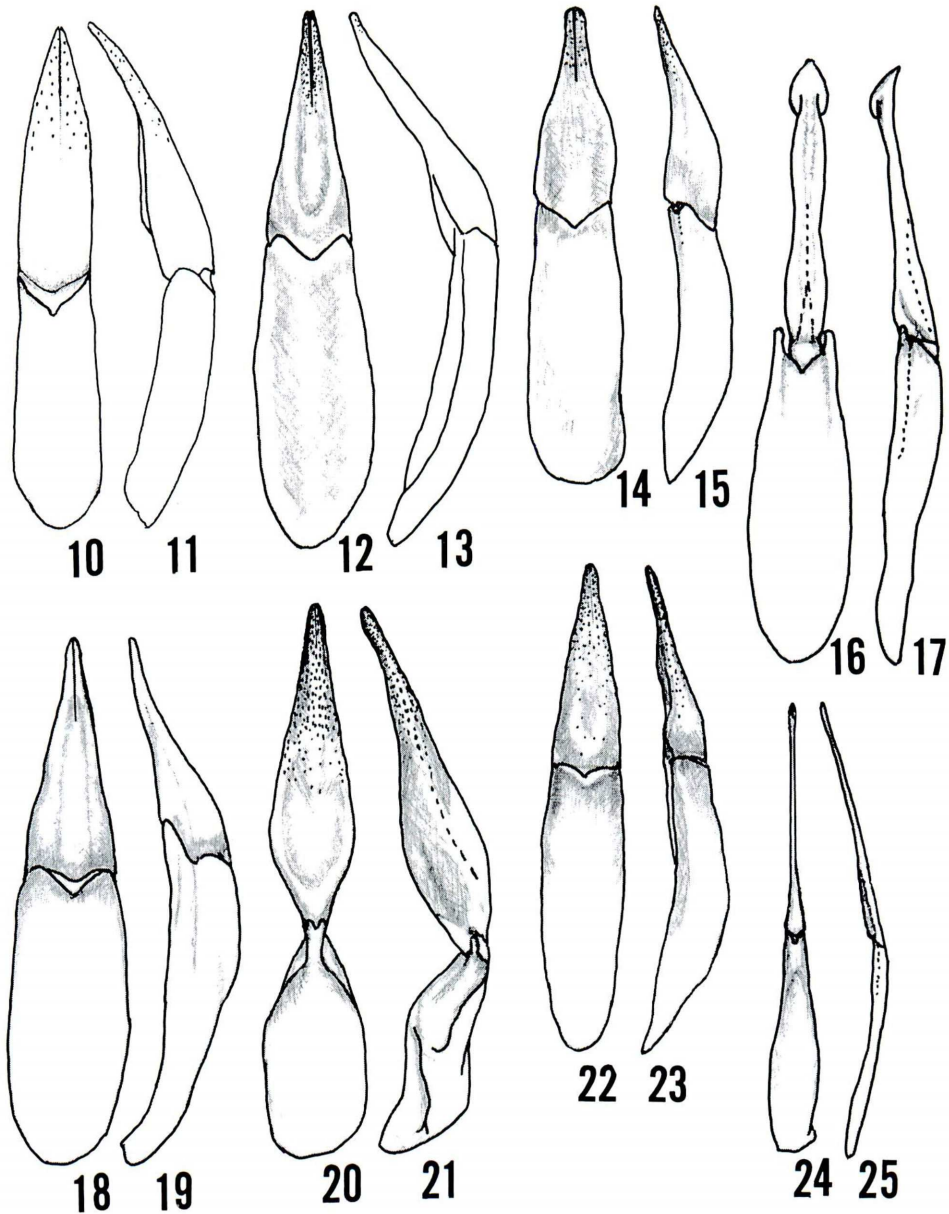
Pronotum somewhat trapezoidal with rounded sides, 1.18 times as wide as long, widest slightly before the middle, feebly sinuous before base; apex very weakly produced, finely rimmed, the rim sparsely scattered with microscopic punctures and becoming finer laterad; base slightly sinuous in lateral parts, strongly bordered and ridged, the ridge scattered with microscopic punctures, which become closer in lateral parts; sides steeply declined to lateral margins, which are clearly bordered and visible from above; front angles rounded, hind angles subrectangular in dorsal view; disc strongly convex, very weakly covered with isodiametric microsculpture, irregularly scattered with punctures, divided into two parts by a median groove, which is deepened before the base. Scutellum feebly elongated triangular, slightly depressed as compared with elytra, very weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures in lateral parts, weakly impressed along median line.

Elytra oblong-ovate, 2.09 times as long as wide, 3.75 times the length and 1.56 times the width of pronotum, widest at apical 4/9; dorsum moderately convex, highest at basal 1/3; disc punctato-striate, the striae very fine, the punctures deep, small and somewhat ovate; intervals weakly convex, sparsely scattered with minute punctures, very vaguely, transversely aciculate; humeri longitudinally swollen; apices rounded.

Male anal sternite without special modification. Legs medium-sized, without modification; ratios of the lengths of pro-, meso- and metatarsomeres: 0.38, 0.31, 0.28, 0.26, 1.20; 1.23, 0.62, 0.43, 0.39, 1.26; 1.07, 0.47, 0.44, 1.24.

Male genitalia gently elongated fusiform, 2.40 mm in length, 0.41 mm in width, weakly curved in lateral view; fused lateral lobes elongated triangular, 1.16 mm in





Figs. 10–25. Male genitalia of *Strongylium* spp. — 10–11, *S. pahangense* sp. nov. (10, dorsal view, 11, lateral view); 12–13, *S. maruyamai* sp. nov. (12, dorsal view, 13, lateral view); 14–15, *S. karubei* sp. nov. (14, dorsal view, 15, lateral view); 16–17, *S. munetoshii* sp. nov. (16, dorsal view, 17, lateral view); 18–19, *S. tanahense* sp. nov. (18, dorsal view, 19, lateral view); 20–21, *S. gombakense* sp. nov. (20, dorsal view, 21, lateral view); 22–23, *S. hangayi* sp. nov. (22, dorsal view, 23, lateral view); 24–25, *S. cameronense* sp. nov. (24, dorsal view, 25, lateral view).

length, with acute apices.

Body length: 11.4–12.3 mm.

Holotype: ♂, Cameron Highlands (19 miles station), Pahang, Malaysia, 15–V–1996, G. HANGAY leg. (HNHMB). Paratypes: 2 exs., same data as for the holotype; 1 ex., Gn. Brinchang, Cameron Highlands, 20–IV–1990, A. RIEDEL leg. (SMNS).

*Notes.* This is an isolated species, with which no previously known species can be compared.

*Strongylium cameronense* sp. nov.

(Figs. 9, 24–25)

Piceous with feeble dark greenish tinge, each dorsal surface and prothorax sericeously shining and almost glabrous, meso- and metasterna and abdomen almost alutaceous and densely covered with adpressed hairs. Body elongated fusiform, strongly convex dorsad.

Head subdecagonal, very feebly covered with isodiametric microsculpture, closely, coarsely punctate; clypeus semicircular, transversely elliptically flattened in basal part, rather steeply inclined in apical 1/3, bent ventrad in front, particularly noticeably so on each side, fronto-clypeal border curved and clearly impressed; genae subrhombic, gently, subrectangularly raised outwards, with corners rounded; frons somewhat X-shaped, gently steeply inclined anteriad, coarsely rugoso-punctate, sulcate along anterior margins of eyes, with an impression along median line in posterior part, diatone about 0.30 times the width of transverse diameter of an eye. Eyes subreniform, convex laterad, obliquely, roundly inlaid into head. Antennae reaching basal 1/4 of elytra, feebly clavate apicad, apical five segments flattened, ratio of the length of each segment from base to apex: 0.61, 0.20, 0.79, 0.98, 0.78, 0.69, 0.64, 0.63, 0.62, 0.59, 0.58.

Pronotum subtrapezoidal with feebly rounded sides, about 1.5 times as long as wide, widest at base, very weakly sinuous before base; apex very weakly emarginate, ridged, the ridge becoming finer laterad, sparsely scattered with fine punctures; base gently sinuous in lateral parts, boldly ridged, the ridge micro-aciculate on anterior face, scattered with fine punctures on posterior face; sides rather steeply declined to lateral margins, which are finely ridged, the ridges in anterior halves visible from above; front angles rounded, hind angles subrectangular in dorsal view; disc weakly convex, feebly covered with isodiametric microsculpture, irregularly, coarsely punctate, the punctures often fused with one another, with a pair of strong impressions at basal 2/5, and also with a longitudinal impression along median line, which is interrupted around basal 1/3. Scutellum sublinguiform, weakly elevated, very weakly, longitudinally concave along median line, feebly covered with isodiametric microsculpture, sparsely, irregularly scattered with microscopic punctures.

Elytra somewhat elongated elliptical, 2.23 times as long as wide, 4.46 times the length and 1.51 times the width of pronotum, widest near base, feebly narrowed in basal 1/3; dorsum strongly convex, highest at basal 1/5, depressed between scutellar



striae; disc with rows of foveae, which are round to elongate on upper surfaces, and deeply impressed at each bottom, 2nd, 3rd, 4th and 5th rows deepened close to base; intervals narrowly ridged, 3rd interval distinctly so in basal part, mostly transversely connected with one another, feebly covered with isodiametric microsculpture, scattered with microscopic punctures, very feebly aciculate; humeri (7th and 8th intervals) longitudinally swollen; apices roundly produced.

Male anal sternite strongly, semicircularly depressed, deeply emarginate in apical part, with the depression haired on posterior face and each apical part strongly curved interiad and haired. Legs rather slender; protibia gently curved with ventral face slightly gouged; ratios of the lengths of pro-, meso- and metatarsomeres: 0.25, 0.18, 0.20, 0.21, 1.20; 1.77, 0.82, 0.69, 0.52, 1.53; 1.89, 0.78, 0.54, 1.41.

Male genitalia about 3.63 mm in length, 0.41 mm in width, weakly curved in lateral view; basal piece subfusiform; fused lateral lobes extremely slender, 2.07 mm in length, and with acute apices.

Body length: 17.6 mm.

Holotype: ♂, Cameron Highlands, Pahang, Malay Peninsula, no collector's name (NSMT). Paratypes: 1 ex., Cameron Highlands, IV-1985, M. NISHIKAWA leg.; 1 ex., 19 miles, ca. 900 m alt., 20-V-1995, G. HANGAY leg. (HNHMB); 1 ex., vicinity of Tapah, Cameron Highlands, 4-V-1995, G. HANGAY leg.; 1 ex., Tapah, 20-IX-1993, G. HANGAY leg.; 1 ex., Perak, Cameron Highlands, I-1985, WONG leg. (SMNS).

*Notes.* This new species resembles *Strongylium perforatum* MÄKLIN, 1864, originally described from Java and distributed in Sumatra, but can be distinguished from the latter by the body slenderer with head and pronotum more densely punctate. This species also resembles *Strongylium gressitti* ARDOIN, 1967, originally described from Laos, but can be distinguished from the latter by the robuster body, with the head more coarsely rugoso-punctate and more strongly impressed in postero-medial part, eyes more strongly convex laterad, the pronotum coarsely rugoso-punctate, and impressed along the medial line and the lateral parts, scutellum not smooth but feebly covered with isodiametric microsculpture, and sparsely, irregularly scattered with microscopic punctures, and the elytra more strongly foveolate, depressed between scutellar striae, and ridged in basal part of the 3rd interval.

## 要 約

益本仁雄：アジア産ナガキマワリ族(Strongyliini)の研究。XIII. マレー半島産ナガキマワリ属(*Strongylium*)について (その1)。—— アジア産ナガキマワリ族(Strongyliini)研究の第13回として、マレー半島産のナガキマワリ属(*Strongylium*)を取り上げた。9種の新種を記載し、それぞれ *Strongylium malaccanum* sp. nov., *S. pahangense* sp. nov., *S. maruyamai* sp. nov., *S. karubei* sp. nov., *S. munetoshii* sp. nov., *S. tanahense* sp. nov., *S. gombakense* sp. nov., *S. hangayi* sp. nov. および *S. cameronense* sp. nov. と命名した。

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## A New Record of *Diaclina plagiata* (Coleoptera, Tenebrionidae) from Taiwan

**Kimio MASUMOTO**

Institute of Human Living Sciences, Otsuma Women's University, Tokyo, 102–8357 Japan

*Diaclina plagiata* (MARSEUL, 1876) was originally described from “Japon, Nagasaki”, and has been known from Southwest Japan and Korea. Katsumi AKITA and I have been extensively studying Japanese and Taiwanese tenebrionid beetles and found a specimen of this species from Taiwan.

*Specimen examined.* 1 ex., Palin, Taoyuan Pref., Taiwan, 28–III–1986, M. ÔHARA leg. (NSMT).

I thank Dr. Masahiro ÔHARA, the Hokkaido University Museum, for offering me the specimen, and also thank Mr. Katsumi AKITA, Hisai City, for his permission to record this species for the first time from Taiwan.

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